

### **DETAILED ACTION**

1. This office action is in response to the Request for Continued Examination filed on 5 February 2010.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Walter Pledger on 4 June 2010.

The application has been amended as follows:

#### **IN THE CLAIMS:**

**Claims 2-36, 43-52 and 54-55 are cancelled.**

Replace claim 1 with "A gas turbine combustor having a cylinder body, comprising: an air-container body which accommodates air for resonance for fluid particles serving as vibration elements of combustion vibration; a resonator having an internal cavity which is installed around a periphery of the cylinder body and which is arranged so as to communicate with the cylinder body through sound-absorption holes; and a first throat having a predetermined length which has one end opening to the internal cavity of the resonator and which has another end opening to the air-container body, wherein the air-container body forms a closed space excluding an opening through the first throat, wherein the air-container body is disposed on the periphery of

the cylinder body so as to be adjacent to the resonator, and a longitudinal direction of the first throat is transverse with respect to a longitudinal direction of each of the sound-absorption holes."

Replace claim 37 with "A gas turbine combustor as described in Claim 1, wherein said first throat has a first resistive element inserted into and engaged with said one end of said first throat, said first resistive element having a multiple number of through-holes."

Replace claim 38 with "A gas turbine combustor as described in Claim 37, wherein an opening area of said one end of said first throat is larger than that of said another end of said first throat."

Replace claim 39 with "A gas turbine combustor as described in Claim 38, wherein said first throat has a second resistive element inserted into and engaged with said another end of said first throat, said second resistive element having a multiple number of through-holes."

Replace claim 40 with "A gas turbine combustor as described in Claim 1, wherein said air-container body is one of a plurality of air-container bodies installed in parallel to said resonator."

Replace claim 41 with "A gas turbine combustor as described in claim 40, wherein said first throat is one of a plurality of first throats, each of said first throats having one end opening to said internal cavity of said resonator and having another end opening to a respective one of said air-container bodies, and wherein a dividing wall is

installed between each of said one ends of said first throats in said internal cavity of said resonator."

Replace claim 42 with "A gas turbine combustor as described in claim 41, wherein said dividing wall serves as a resistive element having a multiple number of through-holes."

Replace claim 53 with "A gas turbine, comprising: an air compressor; a gas turbine combustor according to Claim 1; and a turbine."

***Allowable Subject Matter***

3. Claims 1, 37-42 and 53 are allowed.
4. The following is an examiner's statement of reasons for allowance: the limitation "a first throat having a predetermined length which has one opening to the internal cavity of the resonator and which has another end opening to the air-container body, wherein the air-container body forms a closed space excluding an opening only through the first throat... and a longitudinal direction of the first throat is transverse with respect to a longitudinal direction of each of the sound-absorption holes..." found in claim 1 is not taught or fairly suggested in any of the prior art of record. The closest prior art of record, Dean, III et al. US 4,135,603, discloses a sound suppressing liners comprising a plurality of resonators connected via a hole 36 where the hole has a resistive mesh material with a plurality of through-holes through the hole; however, Dean does not disclose or fairly suggest an air-container body as described in claim 1, but rather a plurality of *resonator* bodies adjacent to each other. One of ordinary skill in the art at the time of the invention would not have found it obvious to modify the resonator bodies of

Dean so as to allow fluid flow only through the throat 36 because the sealing a resonator body would disrupt the intended purpose of the resonator body of Dean.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERALD L. SUNG whose telephone number is (571)270-3765. The examiner can normally be reached on M-F 9am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cuff can be reached on (571) 272-6778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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